UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,466	02/25/2002	Tetsuya Okumura	57090 (70904)	4306

21874 7590 04/21/2008

EDWARDS ANGELL PALMER & DODGE LLP
P.O. BOX 55874
BOSTON, MA 02205

EXAMINER	
PSITOS, ARISTOTELIS M	

ART UNIT	PAPER NUMBER
2627	

MAIL DATE	DELIVERY MODE
04/21/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/082,466	OKUMURA ET AL.	
	Examiner	Art Unit	
	Aristotelis M. Psitos	2627	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 December 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

In response to applicant's request filed on 12/12/07 the previous Final Office action of 9/12/07 is hereby VACATED, and the following action is taken.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1,7,13 and 2,8,14 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.

As presented in claim 1, the meets and bounds of the elements in this claim is not clear when the dependent claims 7 and 13 introduce their limitations.

In particular, independent claim 1 calls for a predetermined length mark measurement means which measures the reproduction characteristics of the short and long reproducing power control marks, which further includes a pattern detection element which when detected measures the reproducing characteristic(s) to only the short power control marks, and a power control means.

As described on page 17 of the specification – as it describes figures 1 and 5, the power control elements is interpreted as element 212 in the acknowledged prior art figure 5, which corresponds to element 12 in figure 1; the pattern detection element is element 6 (which has no equivalent in the acknowledged prior art figure 5), and the length mark signal measuring element is interpreted as elements 8 and 9 in figure 5, which corresponds to elements 221 and 222 in figure 5 (the acknowledged prior art).

However, claim 7 attempts to further limit parent claim 1 by introducing a reproduction control element, which as noted in page 17 of the disclosure, is elements 11 and 12. Since element 12 is already presented as the power control element, the meets and bounds of the parent claim are no longer clearly understood.

Finally, claim 13 then further limits claims 7/1 by introducing a division circuit which is arranged to measure a ratio between the amplitude values of the short and long reproducing power control marks.

This is defined as element 10 in figure 1, and the equivalent element 210 in figure 5, the acknowledged prior art. However, because the long mark measuring element is not responsive to the pattern detection means of the parent claim 1, the meets and bounds of the parent claim are no longer clear.

Wrt claims 2, 8 and 14; the meets and bounds of claims 2 and 8 are not clear for the reasons as stated above wrt claims 1 and 7, i.e., the power control element of claim 2 is element 12; while the reproducing condition control means is elements 11 and 12. Claim 14 further depends upon claim 8 and fails to further clarify the above problem.

As far as the claims are interpreted and understood, the following art rejections are made.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1,2,5,7,9,11,13,15,and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the acknowledged prior art considered with Tanaka et al and both further considered with Okumura et al (6288992).. .

Claim 1	Acknowledged prior art figure 5
An optical reproducing device comprising:	see disclosure of this figure on page 17 of the present specification
predetermined length mark signal measurement means for measuring reproduction signal characteristics respectively of a short reproducing power control mark and of a long reproducing power control mark from information data that are recorded in a data recording area of a sector of an optical recording medium;	see below analysis as it refers to elements 221 & 222 with respect to elements 8 & 9 see Okumura et al

and power control means for controlling reproducing power of a light beam based on the measured reproduction signal characteristics of the short and long reproducing power control marks,	elements 211 & 212
wherein the predetermined length mark signal measurement means further includes a pattern detection means for detecting a specific pattern including therein an arrangement of a plurality of short reproducing power control marks from amongst a bit arrangement pattern of the information data in the data recording area, and when the specific pattern is detected, to measure the reproduction signal characteristic of short reproducing power control marks, the measured reproduction signal characteristic of short reproducing power control marks corresponding only to the plurality of short reproducing power control marks included in the specific pattern.	see analysis of Tanaka et al

In th above analysis, the examiner has compared and contrasted the elements in figures 1 and 5, and concludes the following elements are equivalent:

Figure 5 (acknowledged prior art)	figure 1
Element 221 & 222	element 8 and 9
Element 210	element 10
Element 211	element 11
Element 212	element 12

Hence, the limitation with respect to:

" ...from information data that are recorded in a data recording area of a sector or an optical recording medium ..."; and

" ....to measure the reproduction signal characteristic of short reproducing power control marks, the measured reproduction signal characteristic of short reproducing power control marks corresponding only to the plurality of short reproducing power control marks included in the specific pattern." Are not clearly found in the primary reference.

The Okumura et al reference, (6288992) when describing the operation of figures 9 & 10

(acknowledge prior art in this document) starting at col. 11 line 16 and continuing till col. 14 line 41, the ability of placing/having the long and short reproducing power control marks in a data recording area of a sector of an optical recording medium is well known.

Furthermore, as noted in Tanaka et al, starting at col 9 line 30, measuring the reproduced signal such that the measured reproduction signal characteristic of a short reproducing power control marks ("2T") correspond only to the plurality of short reproducing power control marks (see figure 9 which depicts therein a plurality of the mark lengths a plurality of short ("2T" marks) is taught as computed on the basis of the time of the shortest recording mark. This is performed so that thermal shift (% of thermal shift of the reproduced signal (pattern) can be measured and jitter therein can be properly evaluated and subsequently used to determine the overall recording power margin – as further discussed in col. 9 starting at line 49.

It would have been obvious to modify the base system of the acknowledged prior art with The above teachings from both Tanaka et al and Okumura, motivation is to have the appropriate Control marks (short/long) in each sector of the record medium as well as to evaluate and compensate for thermal shift in the recording power margin. Although the margin is referred to the recording power, such a thermal shifts have impact upon the reproducing modes/capabilities of a laser as well. One of ordinary skill in the art would avail themselves of correction systems in an optical reproducer.

With respect to claims 3 and 5, i.e., the mT 2T 2T nT pattern - (m,n = positive integers), and that M= n = 2, as noted in page 20 of the present specification, such is also present in the prior art pattern. Alternatively, see Tanaka et al, which depicts a mark pattern of 2T 2T 2T 2T.

Hence this limitation is considered met with the above combined teachings.

With respect to claims 7, 9 and11, the examiner interprets such an element as further taught by The acknowledged prior art with respect to elements 211 & 212. No further analysis is presently advanced.

With respect to claims 13,15 and 17, the division element is interpreted as element 210 in the Acknowledged prior art, while the target value is introduced through the (-) input of amplifier 211.

3. Claims 19/1, 19/3, 19/5, 20/13,20/15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1,3,5,13, and 15 above, and further in view of Okumura et al (6404717),

With respect to the ability of having the measuring element predicated upon an average value of the measured signals, such is taught/provided for by Okumura et al - see for instance the discussion as recited in col. 13, lines 6-13.

It would have been obvious to modify the base systems as relied upon above with this additional ability, motivation is as discussed in the abstract of the document.

Allowable Subject Matter

4. Claims 2,4,6,8,10,12,14,16,18, 19/2,19/4, 19/6, 20/14, 20/16 would be allowed if the above 112 problems with respect to claims 2,8 and 14 were corrected. None of the cited prior art teaches the additional capability of the comparison means (elements 6 & 7) further included in the predetermined mark length measuring means (elements 8 & 9) as define in the specification on page 18 thereof.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-Thru: 6:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aristotelis M Psitos
Primary Examiner
Art Unit 2627

/Aristotelis M Psitos/
Primary Examiner, Art Unit 2627
5.